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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
HARRISBURG REGIONAL OFFICE
BUREAU OF AIR QUALITY CONTROL

PLAN APPROVAL

Approval No: 36-327-011A

Owner: Hamilton Technology, Inc.

Address: 101 North Queen Street

Lancaster, PA 17604

Attention: Mr. Paul L. Reinhart

Director of Manufacturing

Source & Air Cleaning Device: Two Conveyorized Vapor Degreasers With Subzero Chillers (Unique Industries/Ultra-Cool, Detrex/Copeland)

Location: City of Lancaster
Lancaster County

In accordance with provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and with Chapter 127 of the Rules and Regulations of the Department of Environmental Resources, the Department on DEC 05 1990 approved plans for the construction of a conveyorized vapor degreaser.

This PLAN APPROVAL expires June 1, 1992.

The plan approved is subject to the following conditions:

1. The 'Detrex' vapor degreaser with a subzero chiller is to be installed in accordance with the plans submitted with the application (as herein approved).

2. This approval authorizes construction only, it is not an operating permit. Prior to start-up of the facility, a temporary operating permit must be obtained pursuant to 25 Pa. Code §127.23. The request must be in writing and should use the attached form. The request must be received at least two weeks prior to initial operation. The source may not be operated without a valid operating permit. Operation without appropriate permit from the Department may be subject to enforcement action.

Notify the person noted below when the installation is completed so that the source can be inspected for issuance of an OPERATING PERMIT.

NOTE: Mr. Kanubhai L. Patel
Air Pollution Control Engineer
One Ararat Boulevard
Harrisburg, PA 17110
(717) 657-4587

SIGNED

Regional Air Pollution Control Engineer

Hbg. Region 36-327-011A
Lancaster District
A & C

Environmental Resources
Harrisburg Regional Office
December 3, 1990

SUBJECT: Hamilton Technology, Inc.
Lancaster, Lancaster County
File: 36-327-011A

TO: Douglas L. Lesher, Chief
Engineering Services Section
Division of Abatement & Compliance

Leif Ericson LE 12/05
Regional Air Pollution Control Engineer
Harrisburg Region

FROM: Kanubhai L. Patel K.L. Patel 12-3-90
Air Pollution Control Engineer
Harrisburg Region

THROUGH: Chief, Engineering Services

This application is submitted for the construction of a conveyorized vapor degreaser to clean flux from printed circuit boards. The 'Detrex' model SMT-12B51-2ER includes 12" wide belt conveyor, covers, primary cooling system, subzero chiller, heaters, still, condenser, high vapor limit switch, low liquid level switch, high solvent temperature control and refrigerant gas pressure monitor. The conveyor speed can be adjusted from 1 to 5 fpm. The opening area of the degreaser as reported in application is 9.2 sq. ft. The entrance and exit tunnels are provided with brush curtains to reduce air displacement. Freon TMS will be used as a cleaning solvent. The consumption of solvent is about 2,000 gallons per year. Physical properties of the solvent is boiling point : 104°F, vapor density : 2.8, sp. gravity : 1.478 @ 70°F, vapor pressure : 330 mm Hg @ 68°F. Freon is not considered VOC.

Primary condenser coils are located above the vapor line. The water temperature is about 45°F. The subzero chiller coils are installed above the freeboard area in the entrance and exit tunnels. The subzero chiller system operates at -29°C temperature. The system is powered with 3 HP, air cooled compressor. Heat rejection rate for the compressor is 36,000 Btu/hr. The subzero chiller is considered BAT.

The vapor degreaser will be operated about 7 hours/day, 1,680 hours/year. VOC emissions from the degreaser is expected to be 6 lbs/hour (6 tpy). County and City notifications were received on October 9, 1990 and October 25, 1990 respectively. This application is not subject to PSD, NSPS or special permitting requirements.

It is recommended that the plan approval be issued and this source be combined with the existing conveyorized degreaser located at the same facility.